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AP - JP19980173660 19980619

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- KINZ

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DR - 1532-P

FS - CPI

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MC - E11-Q01 E31-A03 J01-E03E M13-A M13-G01

M3 - [01] C101 C550 C810 M411 M720 M903 M904 M910 N104 N163 N164 Q431 Q463  
Q464; R01532-K R01532-P; 1532-P

PA - (ISHI ) ISHIKAWAJIMA HARIMA HEAVY IND

- (KINZ ) NIPPON KINZOKU IND CO LTD

PN - JP2000005580 A 20000111 DW200013 B01D71/02 007pp

PR - JP19980173660 19980619

XA - C2000-043788

XIC - B01D-069/12 ; B01D-071/02 ; C01B-003/56

AB - JP2000005580 NOVELTY - A composite hydrogen permeation film is formed by joining and composing palladium or palladium alloy film with metallic porous board in the hydrogen separation apparatus.

- DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (i) manufacture of composite hydrogen permeation film which involves using palladium or palladium alloy film by plating, deposition or sputtering on a metal substrate and forming foil of palladium or palladium alloy. The formed foil is peeled off and the metal powder is baked and forms a porous board. A pressure of 10 or less N/mm<sup>2</sup> is applied and is joined and composed in non-oxidizing gas atmosphere including exfoliative foil and porous board in the vacuum of 500-1000 deg. C. (ii) repairing the pinhole produced on the composite hydrogen permeation film. A solvent is added to palladium or palladium alloy of 1 μm or less particle size and sets as a paste shape. After the paste closes the pinhole produced in palladium or palladium alloy film, then heated in non-oxidizing atmosphere containing vacuum of 400-900 deg. C.

- USE - None given.

- ADVANTAGE - High rate of hydrogen permeation is maintained using the palladium or palladium alloy thin film. The composite hydrogen permeation film having pressure resistance which joins the reinforcement material so that a thin palladium film bears differential voltage. The pinhole formed is repaired. A very thin film is obtained.

- (Dwg.0/4)

CN - R01532-K R01532-P

DRL - 1532-P

IW - COMPOSITE HYDROGEN PERMEATE FILM PRESSURE RESISTANCE MAINTAIN HIGH RATE HYDROGEN PERMEATE FORMING JOIN COMPOSE PALLADIUM PALLADIUM ALLOY FILM METALLIC POROUS BOARD HYDROGEN SEPARATE APPARATUS

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NC - 001

AO

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OPD - 1998-06-19

ORD - 2000-01-11

PAW - (ISHI ) ISHIKAWAJIMA HARIMA HEAVY IND  
- (KINZ ) NIPPON KINZOKU IND CO LTD

TI - Composite hydrogen permeation film having pressure resistance and  
maintains high rate of hydrogen permeation - is formed by joining and  
composing palladium or palladium alloy film with metallic porous board  
in the hydrogen separation apparatus